

REMARKS

Claims 1, 3 to 5, 7, 8, 10 and 13 to 22 are pending.  
Claims 1, 3 to 5, 7, 8, 10 and 13 are cancelled. No claims are allowed.

1. Claims 1, 3 to 5, 7, 8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over White et al. (U.S. Patent Application Pub. No. 2005/0203525) in view of Weigand et al. (U.S. Patent No. 4,023,572). These claims have been cancelled, thereby rendering this rejection moot.

2. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over White et al. and Weigand et al., as applied to claim 1, in further view of Lechot (U.S. Patent No. 5,658,290). Claim 10 has been cancelled, thereby rendering this rejection moot.

3. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over White et al. and Weigand et al., as applied above, in further view of Nordin (U.S. Patent No. 3,847,154). Claim 13 has been cancelled, thereby rendering this rejection moot.

4. Claims 14 to 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ross (U.S. Patent No. 3,412,733) in view of Lechot (U.S. Patent No. 6,106,536) in further view of Weigand et al. (U.S. Patent No. 4,023,572).

Ross relates to an acetabular reamer comprising a dome-shaped head 4. A drive member 1 in the form of a shaft has a

proximal end secured to an apex on the interior surface of the dome. The distal end of the drive shaft 1 is at a location significantly spaced from the interior of the dome shaped head 4.

The Lechot patent is directed to a surgical reamer comprising "a hollow hemispherical cap 1 . . . fitted with a diametral reinforcing bar 2 and rigidly attached to a cylindrical pin 3 equipped with four pegs 4, directed radially so as to form a cross for the attachment of the reamer to a reamer spindle. . . The rim of the cap 1 takes the form of a cutting edge 5 over half of the circumference of the rim opposite the means 3, 4 for attachment of the reamer spindle. The cutting edge 5 is thus situated in a plane containing the axis of rotation of the reamer."

The Examiner states that "[i]t would have been obvious to one of ordinary skill in the art at the time of the invention to modify the structure of the shaft of Ross in view of the shaft of Lechot in order to construct a reamer spindle attachment that determines the axis of rotation of the reamer while providing stability via more attachment points."

(Emphasis added.) In essence, the Examiner's position is that one skilled in the art would understand to provide Lechot's four pegs 4 on the distal end of Ross' drive shaft 1. When a drive member was connected to the thusly modified reamer, the connection between them would exhibit increased stability by virtue of the pegs 4. In that respect, the Examiner believes that it would have been desirable to increase rotational stability of a reamer at the time of the presently claimed invention. The Applicants agree that improved rotational stability is certainly a desirable attribute.

The Examiner concedes that Ross and Lechot combined "do not appear to specifically teach a radial spokes plane within the dome at an intermediate location between the theoretical equatorial plane of the dome and apex." For that reason, the Weigand et al. patent is cited.

As previously discussed in Applicants' amendment filed on January 7, 2009, Weigand et al. relates to a milling tool 100 for preparing a joint socket in the prosthetic replacement of a joint. The milling tool 100 comprises a hollow, hemispherical body 101 having a rim 102 surrounding a central hemispherical cavity 103. The body comprises a plurality of outwardly extending cup-shaped projections 104 having milling blades formed in the leading edge thereof. When the tool 100 is rotated, the milling blades 105 mill tissue. The subsequently milled tissue moves into the cavity 103 through holes 107. One structure for securing the milling tool 100 to a support structure for rotation is by a mounting rod 110 having its opposite ends secured to holes 111 in the body 101.

As the Examiner previously stated, one skilled in the art having studied Ross in view of Lechot would have been motivated to build a reamer "while providing stability via more attachment points." So, if increased stability would have been a motivating factor, substituting Lechot's four pegs 4 for Weigand et al.'s single mounting rod 110 would have provided a reamer with even more stability, provided the pegs 4 were "secured to holes 111 in the body 101" as taught by Weigand et al.

On the other hand, for the Examiner to state that increased stability would have resulted from a combination of Ross and Lechot, but then to contend that even more stability

would not have been desirable to further connect Lechot's pegs 4 to the inside of the reamer as taught by Weigand et al. is a clear case of picking and choosing what would and wouldn't have motivated one skilled in the art for the sole purpose of rejecting the Applicants' pending claims. If increased reamer stability is sufficient to combine Ross and Lechot, the Examiner must continue down that path in the further citation of Weigand et al.

Along that line of reasoning, the Examiner points out that one would want "to modify the attachment location of Ross and Lechot in view of Weigand in order to provide more finite control of the reamer head, especially near the apex, during use, while protecting the connection of the interface structure and reamer spindle." The attribute of "more finite control" sounds a lot like "more stability".

With "more stability" or "more finite control" as a guiding premise, an even more stable or better controlled reamer would not only have the pegs 4 positioned "in a radial spokes plane within the dome at an intermediate location between the theoretical equatorial plane of the hemispherical dome and the apex", as called out in pending independent claim 14, but those spokes would have to be connected to the inside of the dome as taught by Weigand et al., but not presently claimed. Otherwise, the Examiner is doing nothing more than reconstructing the Applicants' claimed invention through hindsight reasoning.

The other proposed attributes of "protecting the connection of the interface structure and reamer spindle" are inconsistent with the Examiner's original position of increased reamer stability as a desired result. Rather, as the

Applicants point out in paragraph 0002 of the published application, the presently claimed reamer structure is for "the purpose of minimizing the size of the reamer and reamer coupling assembly when performing minimally invasive joint surgery."

Accordingly, pending independent claim 14 is neither anticipated by any one of the cited prior art references, nor would it have been obvious in light of their combination. Claims 15 to 17 are patentable as hinging from an allowable base claim.

Reconsideration of this rejection is requested.

5. Claims 18 to 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ross, Lechot and Weigand, as applied to claim 14, further in view of White et al. (U.S. Patent Application Pub. No. 2005/0206525).

These claims depend from independent claim 14 which is allowable over the cited combination of Ross, Lechot and Weigand et al. White et al. does not add any teaching that adversely affects that allowability. Accordingly, claim 18 to 21 are patentable as hinging from an allowable base claim.

Reconsideration of this rejection is requested.

6. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ross, Lechot and Weigand et al., as applied above, in further view of Nordin.

Independent claim 22 has a somewhat similar scope as independent claim 14 with respect to the hemispherical, hollow dome and the interface structure. This aspect of independent claim 22 is allowable over the combination of Ross, Lechot and

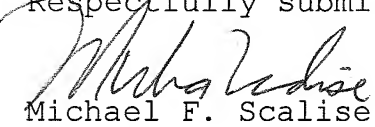
Weigand et al. for similar reasons as previously discussed with respect to claim 14. The inclusion of Nordin's angled reamer spindle does not adversely affect that allowability.

Reconsideration of this rejection is requested.

7. The prior art made of record and not relied upon has been reviewed. However, it is not considered to be more relevant to the patentability of the pending claims than the currently cited prior art.

It is believe that claims 14 to 22 are in condition for allowance. Notice of Allowance is requested.

Respectfully submitted,

  
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